EPA Guidance For SO2 NAAQS Stresses Air Quality Modeling, Early Action

InsideEPA.com: September 29, 2011

EPA has quietly released its long-sought draft guidance for how states should implement its stricter sulfur dioxide (SO2) ambient air standard, putting a major emphasis on air quality computer modeling over monitoring, and calling for measures to improve air quality even before areas are designated as out of attainment with the standard.

The guidance released Sept. 22 is crucial to states because it outlines some of the steps they should take in crafting state implementation plans (SIPs) for either staying in attainment or cutting pollution to get out of nonattainment with the SO2 national ambient air quality standard (NAAQS). EPA in June 2010 set the standard at 75 parts per billion (ppb) over one hour, abolishing a prior 24-hour standard of 140 ppb and an annual standard of 30 ppb.

Some states are suing EPA over the standard because it requires a mix of modeling and monitoring data to determine attainment designations. Critics say modeling can overestimate emissions, making it more likely areas will be found in nonattainment and required to craft SIPs imposing costly pollution controls on industry to reduce SO2 and reach attainment.

EPA in a fact sheet to accompany the new guidance reiterates that it anticipates designating areas with 2008-2010 monitoring data or modeling results showing a NAAQS violation as nonattainment, and those with both types of data showing no violation as attainment, but the agency will designate all other areas as "unclassifiable." This angers unclassifiable states that have monitoring data, but not modeling, showing them in attainment.

One state source previously hoped that the guidance would provide more specifics on how modeling should be used to evaluate sources, among various questions. A second state source said the guidance should serve as an opportunity for the public to comment on the designations approach, given states' concerns over its implications.

Under the guidance, states with unclassifiable areas must submit SIPs by June 2013 to demonstrate by modeling that "all sources contributing to monitored and modeled violations of the new standard, or that have the potential to cause or contribute to a violation, will be sufficiently controlled to ensure timely attainment and maintenance" of the NAAQS. The SIPs should include "enforceable emissions limitations, timetables for compliance, and appropriate testing/reporting to assure compliance," though EPA does not require SIPs to include a deadline for showing attainment.

Still, the agency says that states should be able to show attainment by August 2017, the same deadline that would be required for areas designated nonattainment being able to show they have met the SO2 NAAQS.

Modeling, Monitoring Plan

Referring to the proposed hybrid modeling and monitoring approach it developed for the SO2 NAAQS, EPA says it "does not believe that this implementation approach is necessarily transferable to other NAAQS pollutants." EPA stresses that its guidance is not legally binding or a "final agency action" subject to legal challenge.

However, EPA says it will issue a rulemaking to address six key topics: (1) establishing that compliance with the NAAQS is appropriately based on the results of both air quality modeling and monitoring; (2) establishing the modeling requirements necessary to determine compliance; (3) establishing the minimum scope of analysis required to demonstrate attainment and maintenance of the NAAQS to comply with the

SIP requirements in [Clean Air Act] section 110(a)(1); (4) establishing a reasonable time period for sources to comply with any new emissions limitations states need to establish in the 110(a)(1) SIPs to demonstrate attainment and maintenance of the NAAQS; (5) to set an attainment date for areas designated as unclassifiable; (6) establishing the criteria for redesignating areas from "unclassifiable" to "attainment." Section 110(a)(1) contains provisions for states to develop SIPs to enforce NAAQS.

In the guidance, EPA addresses some of the issues that it will tackle in the rulemaking, but says it will solicit public comment on the draft guidance before producing a final version, the agency says.

For example, EPA gives advice on how to use modeling for SO2 sources, how to prepare air act section 110(a)(2) "infrastructure" SIPs to account for the new NAAQS and how to deal with the interstate pollutant transport issues arising from the new NAAQS. Section 110(a)(2) contains SIP elements related to the general information and authorities that in EPA's parlance constitute the "infrastructure" of a state's overall air quality management program.

EPA in the guidance warns that neither its Cross-State Air Pollution Rule -- a cap-and-trade program to reduce interstate SO2 and nitrogen oxides pollution -- nor its recently finalized air toxics rule for power plants would necessarily achieve compliance with the 1-hour SO2 NAAQS. Both rules will reduce SO2, but neither will necessarily require permanent, source-specific controls for NAAQS attainment, EPA says-- *Stuart Parker*